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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/797,384
Filing Date: March 10, 2004
Appellant(s): NAMKOONG ET AL.

Monica H. Choi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09/30/2009 appealing from the Office action mailed 04/28/2009.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2001/0038704	ITO ET AL.	11-2001
6625755	HIRATA ET AL.	9-2003
JP 10-138420	MAKITA ET AL.	11-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 5, 8-9, 12, 14, 16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 2001/0038704) and Hirata et al. (US 6,625,755).

Regarding claim 1, Ito et al. disclose a method of retrying reading or writing of data (Fig. 3), comprising: determining whether the data is a predetermined type of data ("step B15" in Fig. 3); not retrying reading or writing only if the data is a predetermined type of data ("yes" branch at "step B15" in Fig. 3); (C) determining a total count of retries for the reading or writing of the data ("set value" in Fig. 3); (D) performing another retry if the total count of retires is not greater than a predetermined maximum number of retires ("step B17" and "step B20" in Fig. 3); (E) terminating retrying of reading or writing of data if the total count of retries is greater than the predetermined maximum number of retires ("step B20", "step B21", and "End step" in Fig. 3); and performing steps C, D, and E only if the data is not the predetermined type of data ("step B15" in Fig. 3); and not

performing the C, D, and E if the data is the predetermined type of data ("Yes" branch at "step B15" in Fig.3); wherein a same order of retry types is followed when the data is not the predetermined type (Fig. 3); and wherein a retry of reading or writing of the data with the predetermined maximum number of retries in step D is performed after the step of determining the type of data and in case of the data not being the predetermined type of data (Fig. 3; [0066]-[0069]; also see "Response to Arguments above") and omitting the retrying process after the step of determining the type of data and in case of the data being the predetermined type of data (Fig. 3; [0066]-[0069]).

However, Ito et al. do not disclose (A) determining a required time period for performing a retrying type of reading or writing of the data; (B) terminating retrying of reading or writing of the data if the required time period is greater than a remaining retrying limitation time; determining whether the data is a predetermined type of data; performing the steps A and B only if the data is the predetermined type of data; wherein a same order of retry types is followed according to a retry table when the data is the predetermined type and when the data is not the predetermined type.

Hirata et al. disclose (A) determining a required time period for performing a retrying type of reading or writing of the data (column 7, lines 20-25); (B) terminating retrying of reading or writing of the data if the required time period is greater than a remaining retrying limitation time (column 7, lines 32-37); determining whether the data is a predetermined type of data (column 7, lines 44-52) and performing the steps A and B if the data is the predetermined type of data ("N" branch at "step 218" in Fig. 6); wherein a same order of retry types is followed (column 6, lines 18-25; column 7, lines

25-30; Fig. 5; Fig. 6) according to a retry table for both when the data is the predetermined type and when the data is not the predetermined type (abstract).

One of ordinary skill in the art at the time the invention was made would have been motivated to modify the teachings of Ito et al. by having the reading or writing of the predetermined type of data retried as disclosed by Hirata et al. instead of having the retrying process omitted (Ito et al., [0015]) so that when it is determined that the type of data is AV data, retrying process is also performed. The modified feature would also enhance the recordability or readability of the predetermined type of data even in case of errors.

Regarding claim 3, Hirata et al. also disclose determining whether an error has occurred during an initial reading or writing of the data or during a prior retry of reading or writing of the data; and performing steps (A) and (B) if said error has occurred (column 7, lines 15-30).

Regarding claim 5, Hirata et al. also disclose the predetermined type of data is A/V (audio or video) data (column 8, lines 45-50).

Regarding claim 8, Hirata et al. also disclose performing a retry of reading or writing the data for the retrying type if the required time period is not greater than the remaining retrying limitation time (column 7, lines 25-30).

Regarding claim 9, see the teachings of Ito et al. and Hirata et al. as discussed in claim 1 above. Further, Hirata et al. also disclose the data is read or written within a magnetic disc drive (Fig. 2). However, the proposed combination of Ito et al. and Hirata et al. does not disclose the magnetic disk drive to be a hard disk drive.

It is noted that hard disk drives are very well known in the art at the time of invention. Thus, Official Notice is taken.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the hard disk drive into the method disclosed by Hirata et al. because of hard disk drives' large capacity and small access time.

Claim 12 is rejected for the same reason as discussed in claim 1 above.

Claim 14 is rejected for the same reason as discussed in claim 3 above.

Claim 16 is rejected for the same reason as discussed in claim 5 above.

Claim 19 is rejected for the same reason as discussed in claim 8 above.

Claim 20 is rejected for the same reason as discussed in claim 9 above.

Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 2001/0038704) and Hirata et al. (US 6,625,755) as applied to claims 1, 3, 5, 8-9, 12, 14, 16, and 19-20 above, and further in view of Makita et al. (JP Application No. 10-138420 – reference will be made to a copy of its translation attached).

Regarding claim 2, see the teachings of Ito et al. and Hirata et al. as discussed in claim 1 above. However, the proposed combination of Ito et al. and Hirata et al. does not disclose starting to time down from the retrying limitation time after a request for reading or writing of the data is generated.

Makita et al. also disclose starting to time down from the retrying limitation time after a request for reading or writing of the data is generated ([0015]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the feature of timing down from the retrying limitation time after a request for reading or writing of the data is generated as disclosed by Makita et al. into the method disclosed by Ito et al. and Hirata et al. as a choice of implementation.

Claim 13 is rejected for the same reason as discussed in claim 2 above.

Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 2001/0038704) and Hirata et al. (US 6,625,755) as applied to claims 1, 3, 5, 8-9, 12, 14, 16, and 19-20 above, and further in view of Sato et al. (JP Application No. 09-217835 - reference will be made to a copy of its translation attached).

Regarding claim 7, see the teachings of Ito et al. and Hirata et al. as discussed in claim 1 above. Further, Hirata et al. also disclose determining the required time period for the retrying type of the lookup table (column 7, lines 21-23). However, the proposed combination of Ito et al. and Hirata et al. does not disclose determining the retrying type of reading or writing from a sequential order of retrying types as stored within a lookup table.

Sato et al. disclose determining the retrying type of reading or writing from a sequential order of retrying types as stored within a lookup table ([0007], [0008], [0009]).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the steps of determining the retrying type of reading or writing and determining the required time period from a lookup table as disclosed by

Sato et al. into the method disclosed by Ito et al. and Hirata et al. for efficiency reason (see Sato et al., [0009]).

Claim 18 is rejected for the same reason as discussed in claim 7 above.

(10) Response to Argument

A- Claims 1, 3, 5, 8-9, 12, 14, 16, and 19-20 are obvious over Ito in view of Hirata.

On page 11, Appellant argues that, "[t]he rejection of claims 1 and 12 under 35 U.S.C. §103(a) as being unpatentable over Ito in view of Hirata is not appropriate because these prior art references fail to teach or suggest all the limitations of claims 1 and 12 and because there is no motivation or suggestion in these references to combine or modify these references to the present invention."

In response, the Examiner respectfully disagrees. While Appellant does not specifically point out which limitations of claims 1 and 12 prior art references fail to teach, the Examiner respectfully submits that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. The Examiner further submits that Ito et al. clearly discloses at least steps of (C), (D), (D), performing steps C, D, and E only if the data is not the predetermined type of data *(i.e. the predetermined data is A/V data and identified by embedded water marks – see [0058] and Fig. 3, if data is not identified to be AV data, retrying is performed through B17-B21)*, and not performing the C, D, and E if the data is the predetermined type of data *(i.e. if the predetermined data*

is A/V data and identified by embedded water marks – see [0058] and Fig. 3 retrying is omitted to save time fowling branch YES at B15), and wherein a retry of reading or writing of the data with the predetermined maximum number of retries in step D is performed after the step of determining the type of data and in case of the data not being the predetermined type of data *(i.e. the predetermined data is A/V data and identified by embedded water marks – see [0058] and Fig. 3, if data is not identified to be AV data, retrying is performed through B17-B21 repeatedly until the predetermined maximum number of retries is reached as determined at step B20)* and omitting the retrying process after the step of determining the type of data and in case of the data being the predetermined type of data *(i.e. if the predetermined data is A/V data and identified by embedded water marks – see [0058] and Fig. 3 retrying is omitted to save time fowling branch YES at B15)* as described in the Office Action.

However, Ito et al. do not disclose the steps of (A) and (B), and further steps of determining whether the data is a predetermined type of data, performing the steps A and B only if the data is the predetermined type of data, wherein a same order of retry types is followed according to a retry table when the data is the predetermined type and when the data is not the predetermined type. In other words, Ito do not disclose retrying processing in case the data is of a predetermined type of data

Hirata et al. disclose all those missing steps and elements as described in the Office Action. Specifically, Hirata et al. disclose the steps of determining whether the data is a predetermined type of data *(column 7, lines 44-52)*, (A) determining a required time period for performing a retrying type of reading or writing of the data *(see column 7,*

lines 20-25); (B) terminating retrying of reading or writing of the data if the required time period is greater than a remaining retrying limitation time *(column 7, lines 32-37)*; and performing the steps A and B if the data is the predetermined type of data *("N" branch at "step 218" in Fig. 6)*; wherein a same order of retry types is followed *(column 6, lines 18-25; column 7, lines 25-30; Fig. 5; Fig. 6 – i.e. the retrying process is repeated until timed out)* according to a retry table for both cases when the data is the predetermined type and when the data is not the predetermined type *(abstract)*.

As such, the proposed combination of Ito et al. and Hirata et al. discloses all steps of processing in both cases of the data being and not being of the predetermined type of data recited in the claims.

Therefore, contrary to Appellant's arguments, it is clear that the prior art references do teach all of the recited limitations.

On pages 12-13, Appellant argues that incorporating Hirata into Ito in the manner described in the Office Action would render unsatisfactory Ito's intended purpose of avoiding any interruption during processing AV data.

In response, the Examiner respectfully disagrees. While Ito suggests omitting processing of AV data (audio/video data), which is identified as having continuity being more important that reliability, so that time required for writing and/or reading processing can be shortened, one of ordinary skill in the art would recognize from Hirata's teachings that omitting of processing as suggested by Ito et al. is not the only way to achieve continuity. Specifically, Hirata et al. clearly teaches that retrying, within a prescribed time, of data such as image data and audio data of which the processing in

real time is important can be performed *(see Hirata et al. at least in column 7, lines 55-60 and column 9, lines 1-5)*. In column 7, lines 55-60, Hirata et al. also suggests that such a predetermined time length can be selected to be sufficiently short or long and high-speed reading and writing of real-time data is ensured *(see Hirata et al. at least in column 8, lines 45-50)*. As such, the Examiner respectfully submits that Appellant's arguments that, *"incorporating Hirata into Ito in the manner described in the Office Action would render unsatisfactory Ito's intended purpose of avoiding any interruption during processing AV data"* are not persuasive. Instead, one of ordinary skill in the art would recognize that omitting of retrying processing in case of AV data is indeed a sacrifice of reliability for the sake of guaranteeing continuity. In other words, according to Ito's teachings, if there are errors in reading or writing of AV data, those errors are accepted in the data in exchange for achieving continuity. Hirata clearly discloses, in the quoted passages, a better solution that reading or writing of AV data, which are also identified as having real-time or continuity property of high importance, can be ensured with both high reliability and continuity being achieved.

For the reasons set forth above, the Examiner respectfully submits that prior art references do teach all limitations of the claims and that the motivation to combine references teachings clearly exists. Therefore, Appellant's arguments are found and proved not persuasive.

As such, it is believed that the rejections of claims 1, 12, and claims 3, 5, 8, 9, 14, 16, 19, and 20 are sustained.

B- Rejection of claims 2, 7, 13, and 18 under 35 U.S.C. 103(a)

On page 13, Appellant argues that claims 2, 7, 13, and 18 are allowable for the same reasons that claims 1 and 12 are allowable.

In response, the Examiner respectfully disagrees since claims 1 and 12 as stated above are not allowable. Further, these dependent claims do not have allowable subject matters as described in the Office Action.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Therefore, the Examiner respectfully submits that the rejections of claims are proper and thus maintained.

Respectfully submitted,

/Hung Q Dang/

Examiner, Art Unit 2621

Conferees:

/Thai Tran/

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/Mehrdad Dastouri/

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